



**Alagnak**

**Aniakchak**

**Katmai**

*Kenai Fjords*

*Lake Clark*

# 2014 Spring Update: KATM

## Freshwater

In June and September, the SWAN freshwater crew will visit each of four temperature arrays in KATM to download data loggers and perform annual maintenance. During that time, they will also visit the outlets of Naknek Lake and Lake Brooks to measure discharge and install or remove water level loggers. In August, the crew will focus on monitoring core water quality parameters at 18 lakes by vertical profile sampling. Core parameters also will be measured hourly at the outlet of Naknek Lake from June through October.

## New Forest Sites

In late July and August, the SWAN vegetation crew will survey forest sites in KATM. New sites will be established and older sites will be remeasured near Nonvianuk, Coville, Bay of Islands, Brooks Camp and the Valley Road. Data on tree age, mortality, regeneration, and fuels will provide information on forest condition for ongoing monitoring of spruce beetle effects.

## Sea Otters Up

Aerial abundance surveys for sea otters, conducted in KATM in 2012, show the population continues to grow. The estimated sea otter population for KATM is 8,644 individuals, with an overall density of 5.95 otters/km<sup>2</sup>. The 2008 population estimate was 7,095 individuals with an estimated density of 4.89 otters/km<sup>2</sup>; from 2008 to 2012, it increased by 22% within the survey boundaries of KATM. To optimize monitoring efforts, we will fly another survey in KATM in 2014. Once completed, SWAN will have three surveys from each park and can begin a power simulation to evaluate methods to improve precision of estimates and the ability to detect change.



Who can see the Secchi Disk at 10 m depth in Mirror Lake? Photo: M. Shephard, NPS.



Measuring forest structure near Brooks Camp. Photo: A. Miller, NPS.



Sea Otter in KATM 2012. Photo: A. Fukuyama (NPS contractor).



<http://science.nature.nps.gov/im/units/swan/>

## 2014 SWAN Field Plans in Katmai

*All dates are flexible and subject to change based on weather and other conditions*

### May

Bald Eagle Nest Monitoring

Dates: Cancelled for the year

Contacts: Sherri Anderson, Tammy Wilson

Fourpeaked Weather Station Maintenance

Dates: May 19 - 30, TBD

Contact: Chuck Lindsay

### June

Coville, Three Forks and Pfaff Mine Weather

Climate Stations Maintenance

Dates: June 2 - 6

Contact: Chuck Lindsay

Surface Hydrology and  
Water Quality Monitoring: Temperature Arrays

Dates: June 2 - 20

Contact: Krista Bartz, Troy Hamon

### July

Marine Nearshore Monitoring

Approximate Dates: July 9 - 18

Contact: Heather Coletti, Carissa Turner

Sea Otter Counts: Aerial Surveys

Dates: TBD

Contact: Heather Coletti

Soils Inventory

Dates: July 15 - 22 ANIA

Contact: Parker Martyn

Vegetation Monitoring

Dates: July 28 - August 29

Contact: Amy Miller, James Walton

### August

Soils Inventory

August 11 - 19 ALAG

Contact: Parker Martyn

Water Quality Monitoring: Vertical Lake Profiles

Dates: August 1 - 15

Contacts: Krista Bartz, Troy Hamon

## Recent Publications

Chuck Lindsay. 2014. SWAN Climate Monitoring Annual Report (2013).

Heather Coletti. 2014. Nearshore Marine Monitoring Report (2012).

March 2014